REMARKS

This is a full and timely response to the non-final Office Action of December 20, 2004. Upon entry of this First Response, claims 1-9 remain pending in this application. Reexamination, reconsideration, and allowance of the application and all presently pending claims are respectfully requested.

Oath/Declaration

The Office Action indicates that the oath or declaration is defective. In particular, it is alleged in the Office Action that the oath or declaration lacks the signature of Thomas J. Mikes and the petition to accept declaration without Mr. Mikes' signature has yet to be considered by the Patent Office. A new oath or declaration is required. Submitted herewith is a Declaration including the signature of Thomas J. Mikes.

Response to §103 Rejections

In order for a claim to be properly rejected under 35 U.S.C. §103, the combined teachings of the prior art references must suggest all features of the claimed invention to one of ordinary skill in the art. See, *e.g.*, *In Re Dow Chemical Co.*, 837 F.2d 469, 5 U.S.P.Q.2d 1529, 1531 (Fed. Cir. 1988), and *In re Keller*, 642 F.2d 413, 208 U.S.P.Q. 871, 881 (C.C.P.A. 1981). In addition, the Federal Circuit has stated that "(i)t is impermissible, however, to simply engage in hindsight reconstruction of the claimed invention, using the applicant's structure as a template and selecting elements from references to fill the gaps." *In re Gorman*, 933 F.2d 982, 987, 18 U.S.P.Q.2d 1885 (1991). In this regard, "(o)bviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be

combined *only* if there is some suggestion or incentive to do so." *ACS Hospital Systems, Inc., v. Montefiore Hospital*, 732 F.2d 1572, 1577; 221 U.S.P.Q. 929, 933 (Fed Cir. 1984).

Claim 1

Claim 1 presently stands rejected under 35 U.S.C. §103 as purportedly being unpatentable over *Dragone* (U.S. Patent No. 6,263,127) in view of *Xiang* (U.S. Patent No. 6,266,140). Applicants respectfully assert that the cited art fails to provide a sufficient motivation for combining *Dragone* and *Xiang* under 35 U.S.C. §103, and the rejection of claim 1 is, therefore, improper.

In this regard, *Dragone* discloses a waveguide router that demultiplexes an optical data "signal" communicated through an optical fiber. It is alleged in the Office Action that it would have been obvious to use a "concentric spectrometer" disclosed by *Xiang* for multiplexing or demultiplexing the optical data "signals" of *Dragone*. In particular, it is asserted in the Office Action that:

> "One of ordinary skill in the art at the time of the invention would have been motivated to incorporate an aberration corrected concentric spectrometer such as taught by Xiang, into the multiplexer and demultiplexer of Dragone; because Xiang teaches that an aberration corrected concentric spectrometer may reduce the crosstalk (resolution) between the constituent wavelength component signals of a demultiplexer (See e.g., Col. 1, 11. 15-45) and as Dragone acknowledges, suppressing the inter-signal crosstalk from the constituent wavelength component signals is advantageous (See e.g., Col 1, 11. 15-25)."

Applicants respectfully disagree that *Xiang* teaches using a concentric spectrometer to "reduce the crosstalk (resolution) between the constituent wavelength component signals of a demultiplexer," as alleged in the Office Action. In this regard, the concentric spectrometer of *Xiang* does not demultiplex or otherwise process optical "signals," such as those described by *Dragone*, for conveying digital data. Instead, the concentric spectrometer of *Xiang* disperses spectra from an "image of a scene." See column 1, lines 17-18. For example, the concentric

spectrometer may be employed within a telescope so that an "image" from a distant object, such as a celestial body, can be better analyzed. See column 1, line 19. Such "images," unlike the optical data "signals" of *Dragone*, do not usually convey digital data and are not typically transmitted through optical fibers. Indeed, *Xiang* specifically teaches that the concentric spectrometer receives an "image" from a slit 20, not an optical fiber. See column 1, line 19; column 3, lines 15-16; and Figures 5 and 6.

Thus, the types of light being processed by the router of *Dragone* and the concentric spectrometer of *Xiang* are quite different, and when the cited art is properly viewed as a whole, it becomes readily apparent that the cited art lacks a sufficient suggestion or motivation for using the concentric spectrometer of *Xiang* for the purpose of demultiplexing or otherwise processing optical data "signals" such as are described by *Dragone*. "Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application for a showing of the teaching or motivation to combine prior art references." *In re Dembiczcak*, 175 F.3d 994, 50 U.S. P.Q.2d 1614, 1617 (Fed. Cir. 1999). Moreover, Applicants respectfully submit that the alleged combination of the concentric spectrometer of *Xiang* with the router of *Dragone* is not gleaned from the teachings of the cited art but is instead based on impermissible hindsight reconstruction of Applicants' invention.

For at least the above reasons, Applicants respectfully assert that the alleged combination of *Dragone* and *Xiang* is improper. Accordingly, the 35 U.S.C. §103 rejection of claim 1 should be withdrawn.

Claims 2-5

Claims 2-5 presently stand rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Dragone* in view of *Xiang*. Applicants submit that the pending

dependent claims 2-5 contain all features of their respective independent claim 1. Since claim 1 should be allowed, as argued hereinabove, pending dependent claims 2-5 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 6

Claim 6 presently stands rejected under 35 U.S.C. §103 as purportedly being unpatentable over *Dragone* in view of *Xiang*. For at least the reasons set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the alleged combination of *Dragone* and *Xiang* is improper. Accordingly, the 35 U.S.C. §103 rejection of claim 6 should be withdrawn.

Claim 7

Claim 7 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Dragone* in view of *Xiang*. Applicants submit that the pending dependent claim 7 contains all features of its independent claim 6. Since claim 6 should be allowed, as argued hereinabove, pending dependent claim 7 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

Claim 8

Claim 8 presently stands rejected under 35 U.S.C. §103 as purportedly being unpatentable over *Dragone* in view of *Xiang*. For at least the reasons set forth above in the arguments for allowance of claim 1, Applicants respectfully assert that the alleged combination of *Dragone* and *Xiang* is improper.

In addition, Applicants submit that *Xiang* teaches away from the features of claim 8 and, therefore, should not be used to reject this claim under 35 U.S.C. §103. In this regard, claim 8 presently reads as follows:

> 8. A method for multiplexing optical signals, comprising:
> providing a concentric spectrometer;
> receiving component optical signals at the concentric spectrometer; and
> ***spatially overlapping the component optical signals into a multi-wavelength optical signal using the concentric spectrometer.*** (Emphasis added).

Xiang describes a concentric spectrometer but specifically teaches that this spectrometer is to be used to "***disperse***" spectra. (Emphasis added). Thus, upon reading *Xiang*, one of ordinary skill in the art would be discouraged from using the concentric spectrometer of *Xiang* for "spatially ***overlapping***" component optical signals into a "multi-wavelength optical signal," as described by claim 8. (Emphasis added). A reference "teaches away" from the claimed invention and should not be used to reject the claimed invention under §103 "when a person of ordinary skill, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 2 F.3d 551, 31 U.S.P.Q.2d 1130, 1131 (Fed. Cir. 1994).

For at least the above reasons, Applicants respectfully assert that the 35 U.S.C. §103 rejection of claim 8 is improper and should be withdrawn.

Claim 9

Claim 9 presently stands rejected in the Office Action under 35 U.S.C. §103 as allegedly being unpatentable over *Dragone* in view of *Xiang*. Applicants submit that the pending dependent claim 9 contains all features of its independent claim 8. Since claim 8 should be

allowed, as argued hereinabove, pending dependent claim 9 should be allowed as a matter of law for at least this reason. *In re Fine*, 5 U.S.P.Q.2d 1596, 1600 (Fed. Cir. 1988).

CONCLUSION

Applicants respectfully request that all outstanding objections and rejections be withdrawn and that this application and all presently pending claims be allowed to issue. If the Examiner has any questions or comments regarding Applicants' response, the Examiner is encouraged to telephone Applicants' undersigned counsel.

Respectfully submitted,

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